



Recent Hypoxia in Glen Canyon Dam Releases

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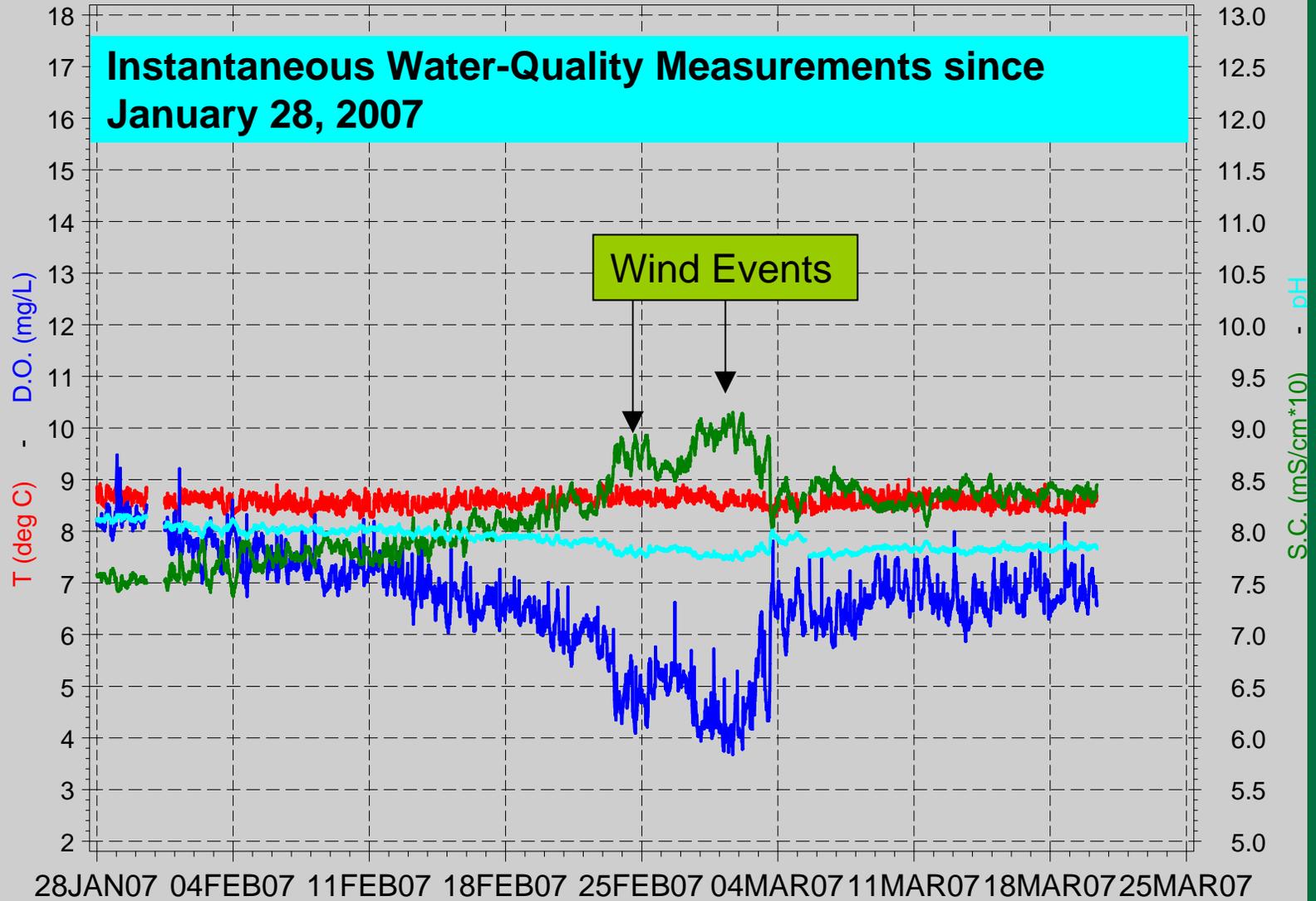
Grand Canyon Monitoring and Research Center

April 2, 2007

Two hypoxic release patterns

- Hypoxic releases from GCD in **March 2007** result of **upwelling of hypolimnion** from cold winter inflows, **augmented by wind events**
- Hypoxic releases in **September 2005** resulted from **hypoxic inflows** influencing releases during continued reservoir drawdown
- **March 2007** forebay conditions show hypoxic hypolimnion moving upwards and incorporating into GCD releases
- Timing of event coincides with model predictions
- Weather patterns and inflow intensity could create 2007 hypoxic event similar to 2004.

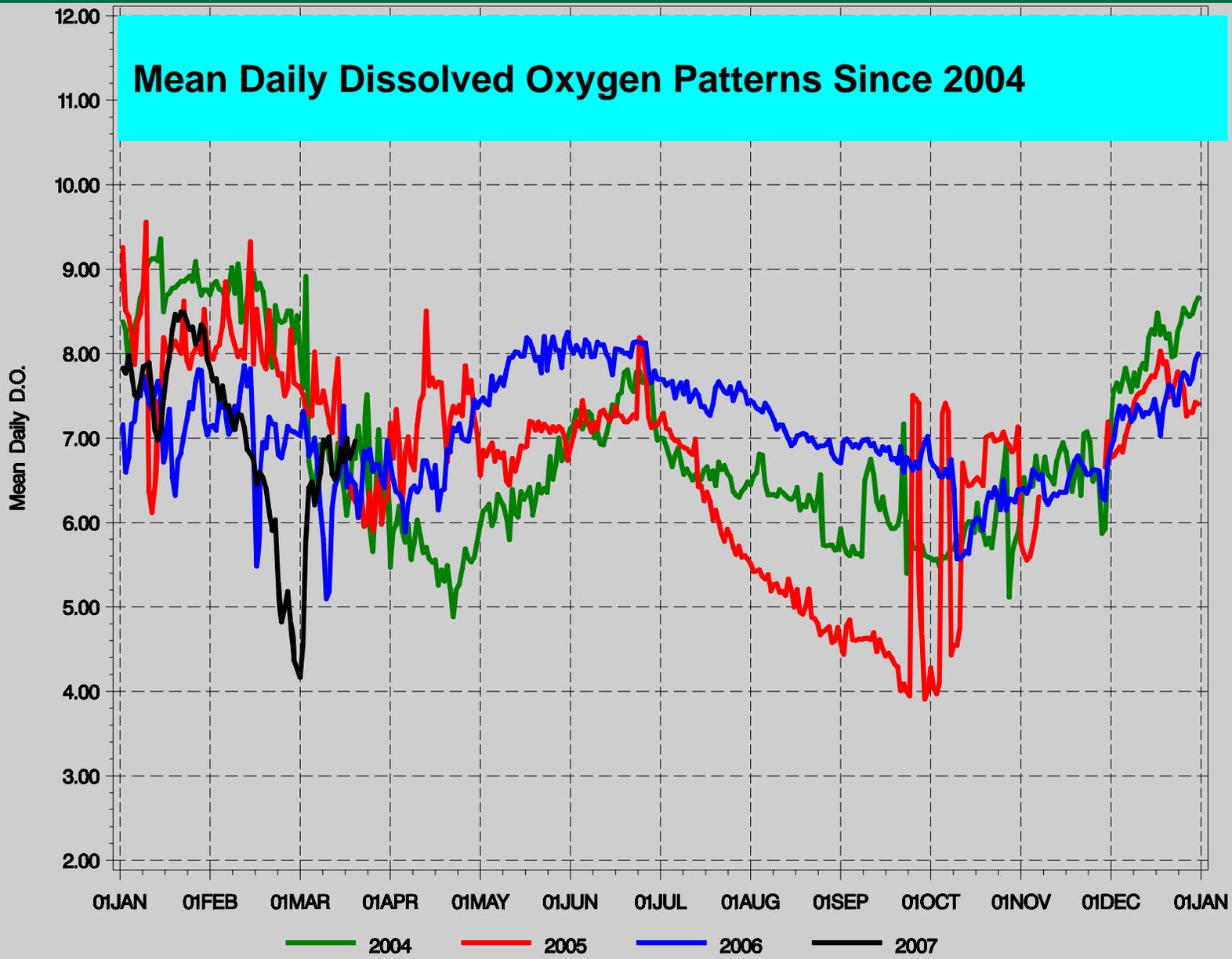
Colorado River below Glen Canyon Dam



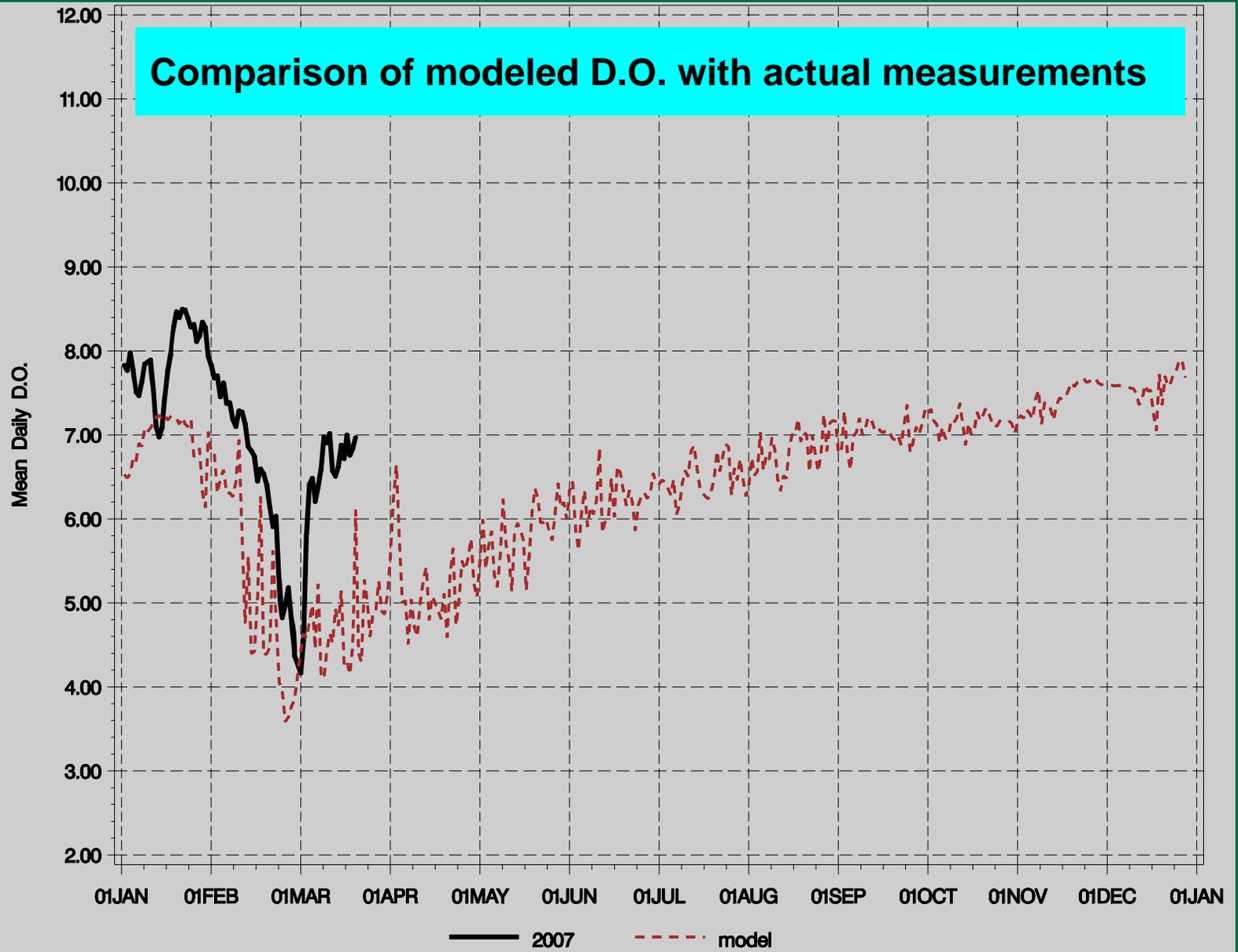
NOTE: Specific Conductance in mS * 10



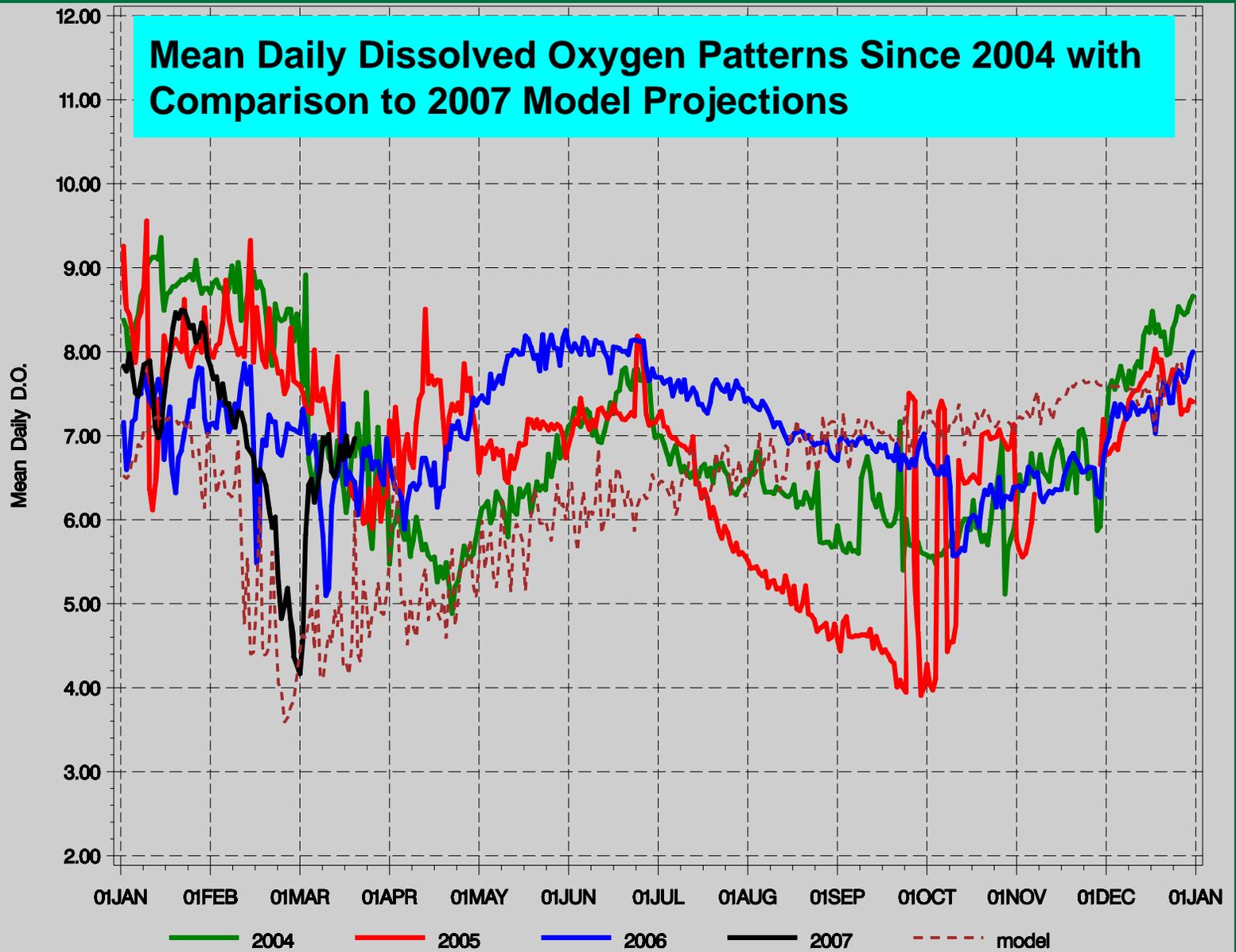
Mean Daily Dissolved Oxygen Patterns Since 2004



Comparison of modeled D.O. with actual measurements

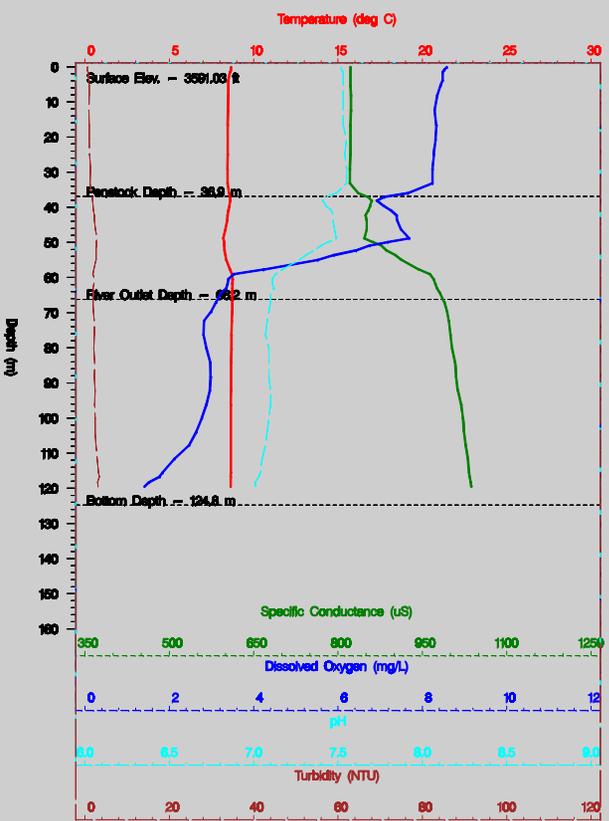


Mean Daily Dissolved Oxygen Patterns Since 2004 with Comparison to 2007 Model Projections

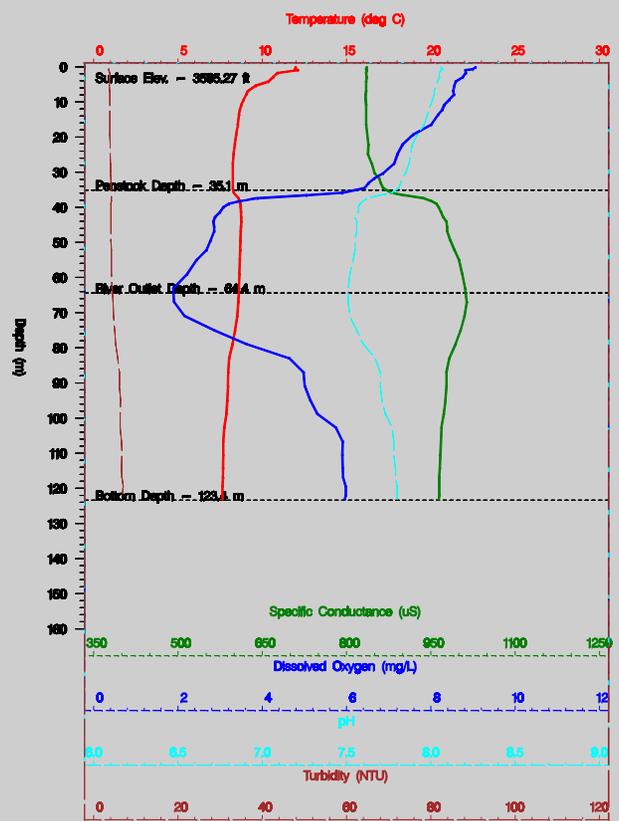


Lake Powell Forebay Water Quality – Spring 2004

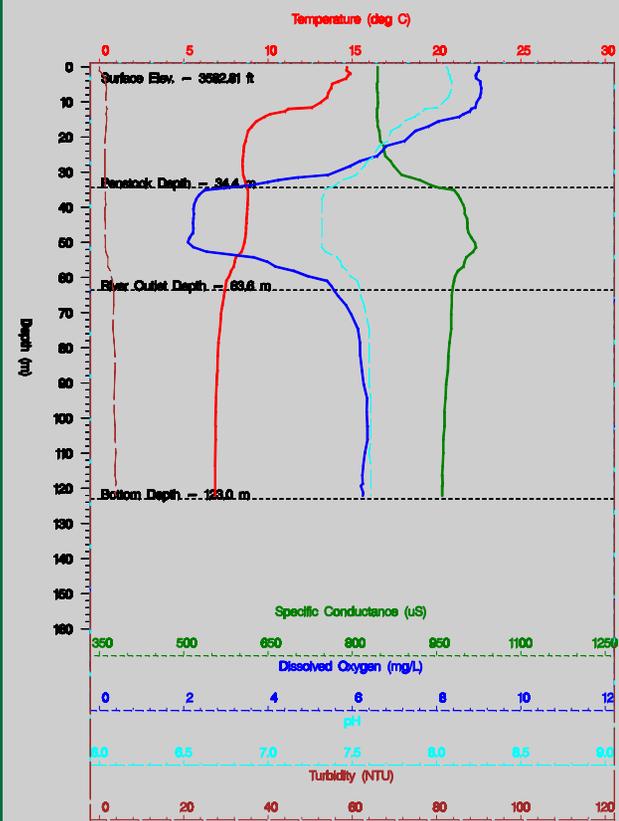
Wahweap
February 5, 2004



Wahweap
March 11, 2004

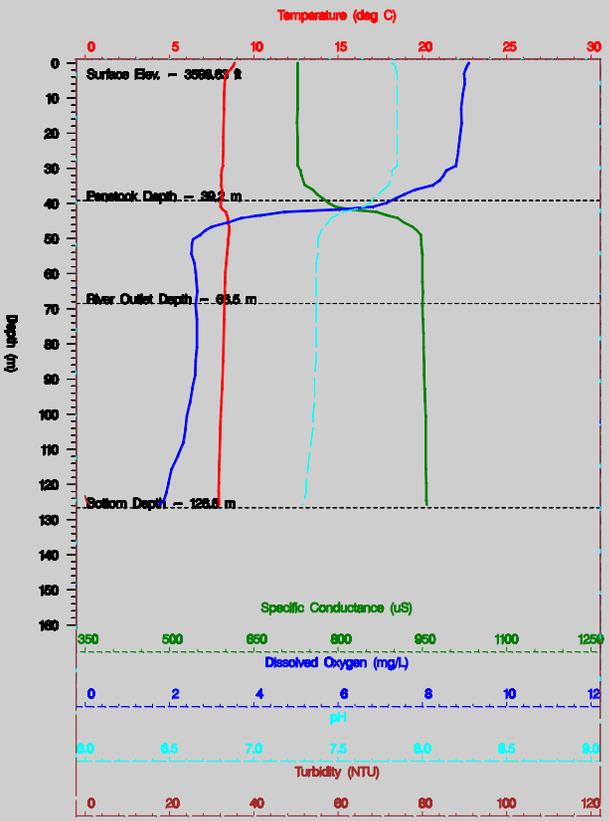


Wahweap
April 7, 2004

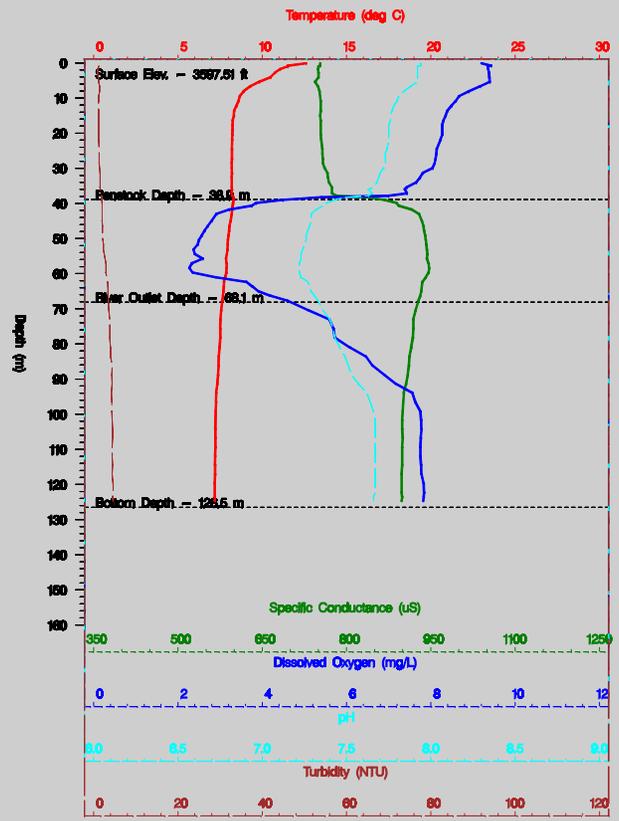


Lake Powell Forebay Water Quality – Spring 2007

Wahweap
February 15, 2007



Wahweap
March 12, 2007



Wahweap
March 17, 2007

